

Customer No.: 31561
Application No.: 10/709,412
Docket No.: 11340-US-PA

To the Claims :

1-15 (canceled)

16. (original) A structure of thin-film transistor (TFT), comprising:

a poly-crystal semiconductor island, formed on a substrate, wherein the poly-crystal semiconductor island is with respect to a rectangular region having a long side and a short side, wherein a plurality long-shape crystal grains from a center strip region along the direction of the long side to the long side;

a gate insulating film, over the semiconductor island; and

a strip gate, located on the gate insulating film between the center grain boundary and the long side, wherein a direction of the strip gate in along the direction of the long side; and

a source region and a drain region are parts of the semiconductor island at each side of the strip gate.

17. (original) The structure of claim 16, wherein the number of the long crystal grains is determined by a ratio of the long side to the short side.

18. (original) The structure of claim 16, wherein the semiconductor island has a saw-like periphery along the long sides.

19. (original) The structure of claim 16, further comprising a strip semiconductor peninsula joining to one side of the semiconductor island.

20. (original) The structure of claim 16, wherein the center strip region is a center grain boundary.

21. (original) The structure of claim 16, wherein the semiconductor island is used as an active island of the thin-film transistor without additional patterning.